

Patent Claims

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5 1. Device (10) for manipulating substrates (11) inside and outside an ultraclean workroom (15) with a sluice device (17), by means of which a substrate cassette (12) accommodated under ultraclean room conditions in a box (13) can be removed from box (13) or reintroduced into this box, and with a first manipulating device (51) by means of which substrates (11) can be placed in cassette
10 (12) and can be removed from this cassette, is hereby characterized in that a storage room (20) for a multiple number of cassette boxes (13) is accommodated on or above the ultraclean workroom (15) and that sluice device (17) is provided between storage room (20) and
15 ultraclean workroom (15).

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20 2. Device according to claim 1, further characterized in that sluice device (17) has one or more locking units (18) that are independent of one another.

3. Device according to claim 2, further characterized in that the sluice door of each locking unit (18) is formed by a component (63, 67) of cassette box (13).

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25 4. Device according to at least one of claims 1 to 3, further characterized in that sluice device (17) is

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arranged in the floor (24) of storage room (20) or of the ceiling of ultraclean workroom (15).

5' 5. Device according to claims 3 and 4, further characterized in that the sluice door is formed by platform (63) of cassette box (13).

10 6. Device according to at least one of claims 1 to 3, further characterized in that sluice device (17) is arranged in a side wall of ultraclean workroom (15).

15 7. Device according to claims 3 and 6, further characterized in that sluice door (67) is formed in a hood (64) of cassette box (13).

20 8. Device according to at least one of claims 2 to 7, further characterized in that a lifting device (47) for substrate cassette (12) or cassette box (13) is assigned to each locking unit (18).

25 9. Device according to at least one of the preceding claims, further characterized in that ultraclean workroom (15) is provided with several working chambers (42 to 44) for processing, manufacturing, testing, sorting and/or like procedures, between which, arranged underneath, and/or between these and the one or more

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~~sites of substrate cassettes (12), the first
manipulating device (51) is provided.~~

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10. Device according to claim 9, further characterized
in that the first manipulating device (51) at floor (24)
of ultraclean workroom (15) is provided with a linear
guide (53).

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11. Device according to at least one of the preceding
claims, further characterized in that storage room (20)
is provided with storage spaces (28, 29) in row and/or
column arrangement, between which, arranged underneath
and/or between locking units (18) of sluice device (17)
and/or between storage spaces (28, 29) and locking units
(18), a second manipulating device (31) is provided, by
means of which cassette boxes (13) can be displaced.

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12. Device according to claim 11, further characterized
in that the second manipulating device (31) is provided
on the bottom and/or the cover side with a linear guide
(33, 34).

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13. Device according to at least one of the preceding
claims, further characterized in that storage room (20)
is provided with one or more input/output openings (22,
23) for cassette boxes (13).

Sub B, 107 14. Device according to claim 13, further characterized in that input/output openings (22, 23) can be closed.

5 Sub A, 107 15. Device according to claim 13 or 14, further characterized in that a manual or automatic loading device is assigned to the input/output openings.

10 16. Device according to at least one of the preceding claims, further characterized in that manipulating device (31, 51) is provided with a fork or gripper unit.

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